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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/814,181

04/01/2004

Ho Sung Lee

K-0627

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34610 7590 07/20/2007
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EXAMINER

BERTHEAUD, PETER JOHN

ART UNIT

PAPER NUMBER

3746

MAIL DATE

DELIVERY MODE

07/20/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/814,181	Applicant(s) LEE, HO SUNG	
	Examiner Peter J. Bertheaud	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 1-4, 11-16, and 20 in the reply filed on 6/25/2007 is acknowledged. The traversal is on the ground(s) that a search of the designated species would encompass a search for the subject matter of the remaining species. This is found persuasive and therefore the election requirement is withdrawn.

Claim Objections

2. Claims 1 and 14 are objected to because of the following informalities: In claim 1, line 6, the phrase "the connection spring" should be changed to --a connection spring--. In claim 14, line 8, the line reads "the suction muffler includes;" and then the details of the suction muffler connector not the suction muffler are what follows. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 4, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee 5,988,990 in view of Lee 5,252,035.

Lee 990 discloses a suction assembly for a hermetic compressor comprising a compression part 120 for drawing a low pressure refrigerant, compressing the refrigerant to a high pressure, and discharging the refrigerant; a suction muffler 122 for attenuating noise of the refrigerant introduced thereto, and discharging the refrigerant toward the compression part; a suction pipe 121 for guiding refrigerant from an outside of the compressor to the suction muffler; and a suction muffler connector 129,130 for connecting the suction muffler 122 and the suction pipe 121, wherein the suction muffler includes; a connection pipe 130 having one side connected to the suction pipe 121 for guiding the refrigerant to the suction muffler 122 (see Fig. 5), and a connection spring 129. Lee 990 further teaches that the connection spring 129 has an upper part extended to an inside of the suction muffler 122. However, Lee 990 does not teach the following claimed limitations taught by Lee 035.

Lee 035 teaches a suction structure for a hermetic compressor comprising a connection pipe 23 fitted to surround a connection spring 7 for preventing exposure of an outside circumference of the connection spring, having a top part held at an inlet 26 to the suction muffler 20. Lee 035 further teaches that the connection pie is formed of an elastic material (see col. 3, lines 30-32). Lee 035 further teaches that the connection spring 7 has an upper part extended to an inside of the suction muffler 20.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the suction assembly of Lee 990, by implementing a connection pipe fitted to surround the connection spring and having a top part held at an inlet to the suction muffler, in order to prevent the suction muffler

Art Unit: 3746

from being damaged or plastic chips of the inlet from being generated (Lee 035, col. 2, lines 26-28).

5. Claims 2, 3, 5-12, and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee 5,988,990 in view of Lee 5,252,035 and in further view of Tack 6,390,788.

Lee 990 in view of Lee 035 discloses the invention as discussed above, as well as the connection pipe including a holding part having annular recess for holding the bottom of the connection spring (see recess of 130 from 131 in Fig. 6, Lee 990). However, Lee 990 in view of Lee 035 does not teach the following claimed limitations taught by Tack.

Tack (Fig. 2) teaches a suction assembly for a hermetic compressor comprising a connection cap 11, a connection spring 12, a suction muffler 9 and a suction pipe 10. Tack further teaches that the connection spring 12 includes an enlarged part having an outside diameter greater than an inside diameter of the suction pipe 10. Tack also discloses that the connection spring 12 has an inside diameter of an upper part thereof of a suction muffler side smaller than an inside diameter of a lower part thereof; wherein the connection spring 12 has a sectional area for flow of refrigerant, that becomes smaller as it goes upward to a suction muffler side the more. Tack further teaches that the connection cap 11 has an upper outside circumferential surface, a suction muffler side, inserted in, and held at the connection cap 11. Tack also discloses that the connection cap 11 includes a hook 11j for hooking an inlet to the suction muffler 9; the connection cap 11 is formed of an elastic material (see col. 2, lines 17-19).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the suction assembly of Lee 990 in view of Lee 035, by implementing a connection cap to fit between the connection pipe of Lee 035 and the suction muffler inlet, as well as use a spring with a enlarged part for holding the lower end of the connection pipe (Lee 990), in order to couple the suction pipe to the suction muffler while absorbing and releasing operational vibration of the compressor (Tack, col. 1, lines 64-67).


Conclusion


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J. Bertheaud whose telephone number is (571) 272-3476. The examiner can normally be reached on M-F 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on (571) 272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3746

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


PJB 7/11/07


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